



Test Certificate No. 100679 / 23-0095 / P07

to order number: 202320095-UK07

Aim of the test: Approval testing of adhesives and primers according to RAL-GZ 716 (status 01/2023)

Customer: Neoflex S. L. U.
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Contractor: Polymer Service GmbH Merseburg
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The requirements for the tested adhesive and primer are met.

This valuation through the inspection body is purely informative. The final valuation is done by the certification body.

Incoming orders: 22.02.2023
Report date: 14.04.2023

This report comprises 2 pages and an appendix.

The tests were carried out in the PSM test laboratory "Mechanical Testing of Plastics", which is accredited by DAkkS according to DIN EN ISO/IEC 17025.

No. of the accreditation certificate: D-PL-20227-01-00,

List of accredited standards see www.psm-merseburg.de

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Task and test material

Laminated profiles were sent by the customer on 21.02.2023. From these, 200 mm long profile sections were prepared. The test in the initial state was performed after 72 h of conditioning at standard climate. After storage in a climatic chamber for 6 weeks (70 °C, 95 % relative humidity) the sections were conditioned for 72 h at standard climate.

Test material

- Adhesive: NEOTHERM PU-3353 MLE
- Primer: PRIMER 3424 F
- PVC FOIL: RENOLIT PX –
- Profile: REHAU- 1550705.1715
- Producer: NACITEX S.L. , SAX (ALICANTE) SPAIN

Results

Peel resistance initial state (N/mm)	Peel resistance after thermolysse/hydrolysis (6 weeks) (N/mm)
3.87	3.73

* Individual results can be found in the appendix

Attachment



Determination of the peel strength of profiles laminated with foils according
DIN EN 17271:2019-09

Test parameter:

Complete description of the tested material (substrate/adhesive/coating)	ADHESIVE: NEOTHERM PU-3353 MLE PRIMER: PRIMER 3424 F PVC FOIL: RENOLIT PX – PROFILE: REHAU- 1550705.1715 PRODUCER- NACITEX S.L. , SAX (ALICANTE) SPAIN
Production of the test specimens	cut
Pretreatment climate	6 weeks 70 °C / 95% rLf Conditioning of the specimens at standard climate before the start of the test. Testing after removal from storage: 72 h after conditioning at standard climate.
Type or dimensions of the test specimens (length/width/thickness)	20 mm stripes
Testing machine used (accuracy class)	Zwick Z050
Force measurement system used	500 N
Displacement measuring system used (accuracy class) and additional device	Traverse class 1
Test climate	Norm climate



Nomenclature:

Description	Formula symbol or calculation equation	Unit
Wide	b	mm
Maximum peeling force	F_{\max}	N
Average peeling force	Average force	N
Peeling resistance	Peeling resistance = $\frac{F_{\text{mittlere}}}{b}$	N/mm
Mean value	\bar{x}	
Standard deviation	s	
Coefficient of variation	v	%



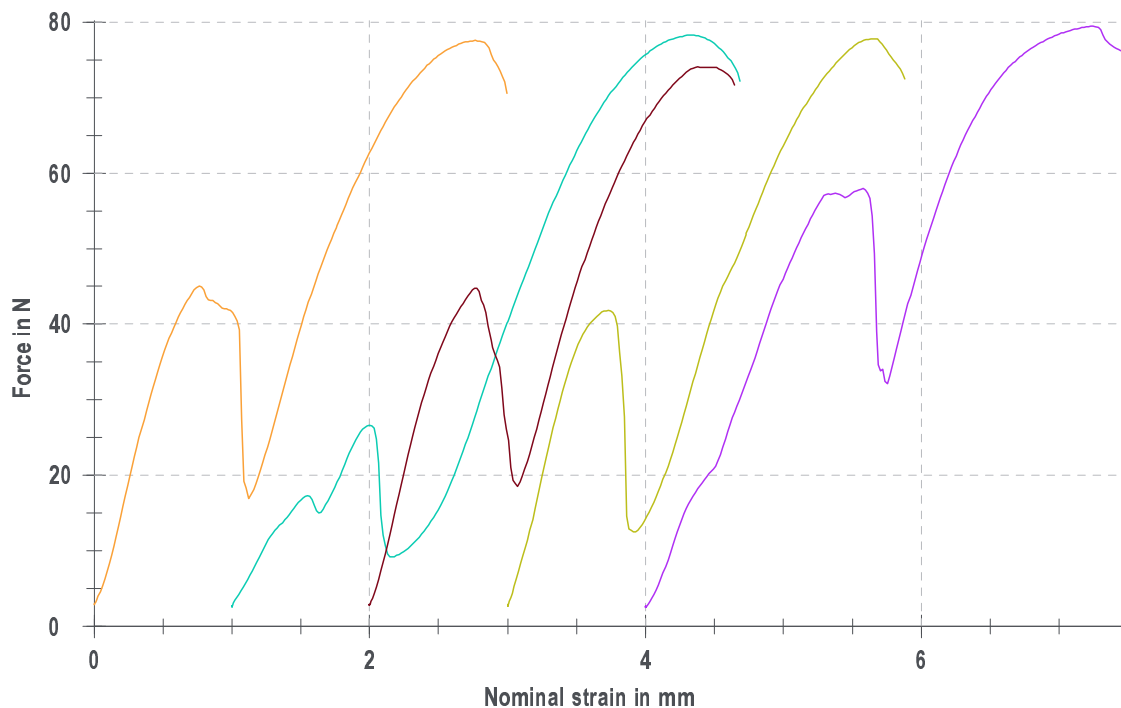
Parameters table:

Customer	: Neoflex S.L.U.	Loadcell	: 500 N
Order number	: 202320095 UK07	Extensometer	: Crosshead
Test standard	: Pell test according RAL-GZ 716	Test speed	: 10 mm/min
	P.3.19	Pre-load	: 3 N
Material	: peel test_0 state	Date	: 28.02.2023
Tester	: Scholz		

Results:

No.	F _{max} N	Peel resistance N/ mm	Peeling length mm	Remark
1	77,6	3,88	0,0	film crack
2	78,3	3,92	0,0	film crack
3	74,1	3,70	0,0	film crack
4	77,8	3,89	0,0	film crack
5	79,5	3,97	0,0	film crack

Series graph:



Statistics:

Series	F _{max} N	Peel resistance N/ mm
n = 5		
\bar{x}	77,4	3,87
s	2,03	0,101
V [%]	2,62	2,62



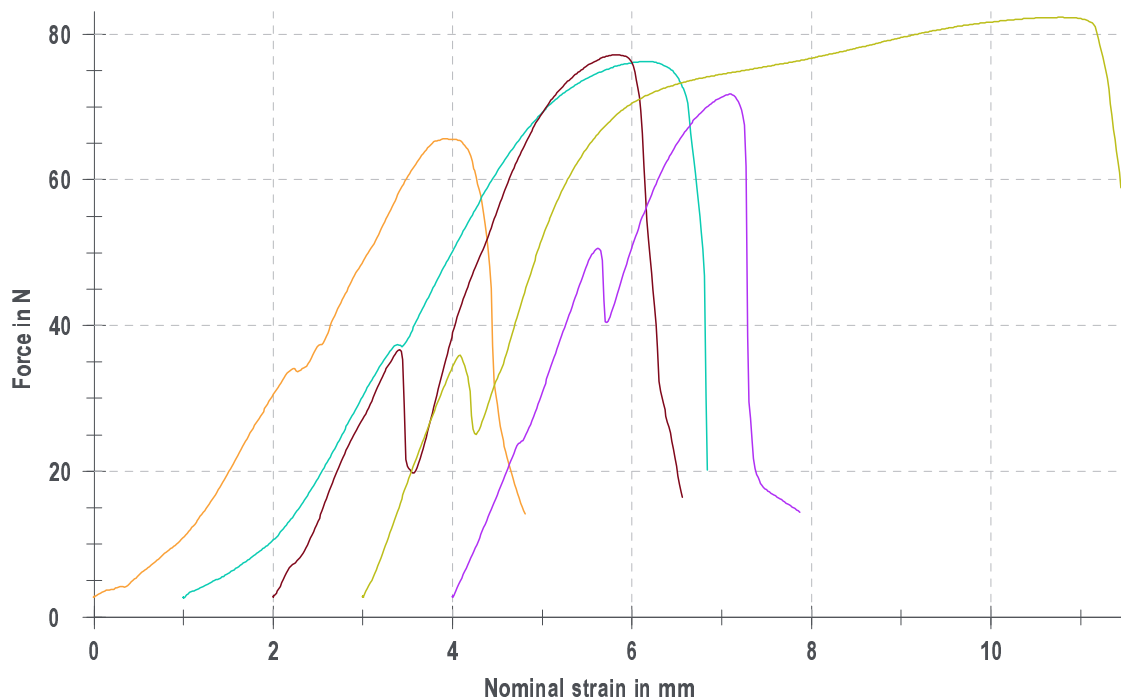
Parameters table:

Customer : Neoflex S.L.U. Loadcell : 500 N
Order number: 202320095 UK07 Extensometer: Crosshead
Test standard : Pell test according RAL-GZ 716 Test speed : 10 mm/min
P.3.19 Pre-load : 3 N
Material : peel test_Hydrolytic/thermolytic storage Date : 14.04.2023
Tester : Scholz

Results:

No.	F _{max} N	Peel resistance N/mm	Peeling length mm	Remark
1	65,7	3,28	0,0	film crack
2	76,2	3,81	0,0	film crack
3	77,2	3,86	0,0	film crack
4	82,3	4,12	0,0	film crack
5	71,7	3,59	0,0	film crack

Series graph:



Statistics:

Series	F _{max} N	Peel resistance N/mm
n = 5		
\bar{x}	74,6	3,73
s	6,26	0,313
V [%]	8,39	8,39